entiation of endosarc and ectosarc; and from the latter in the possession of a well-defined nucleus. He proposed for it the following name with distinctive characters:—

ENDAMŒBA.

General character and habit of *Amœba;* composed of colorless, homogeneous, granular protoplasm, in the ordinary normal active condition without distinction of ectosarc and endosarc; with a distinct nucleated nucleus, but ordinarily with neither contractile vesicle nor vacuoles.

ENDAMŒBA BLATTÆ.

Eine art Proteus. Seibold: Beitr. z. Naturges, d. wirb. Thiere, 1839, *fide* Stein.
Amöbenform. Stein: Organismus d. Infusionstheire, 1867, II., 345.
Amœba Blattæ. Bütschli: Zeits. f. wis. Zoologie, 1878, xxx. 273, Taf. xv., Fig. 26.

Initial form globular passing into spheroidal, oval, or variously lobate forms, mostly clavate and moving with the broader pole in advance. Protoplasm finely granular, and when in motion more or less distinctly striate. Nucleus spherical, granular, with a large nucleolus. Distinct food particles commonly few or none. Size of globular forms 0.054 mm. to 0.075 mm. in diameter; elongated forms 0.075 mm. by 0.06 mm. to 0.15 mm. by 0.09 mm. Parasitic in the large intestine of *Blatta orientalis.*

The *Endamœba blattæ* affords a good example of a primitive, active *nucleated organic corpuscle*, or a so-called *organic cell without a cell wall.* In the encysted condition it would be a complete nucleated organic cell. *Endamœba* may be recommended as a convenient illustration of a primitive form of the organic cell on account of its comparatively ready access.

OCTOBER 14.

The President, Dr. RUSCHENBERGER, in the chair.

Thirty-two persons present.

On the Supposed Sensitive Character of the Glands of the Asclepiadaceæ.—Mr. E. POTTS, referring to a communication made a year ago to the Academy and published in its Proceedings for 1878, p. 283, with regard to the supposed discovery of a sensitive contractile power analogous to that of *Dionea*, in the stigmatic glands of the Asclepiadaceæ, said that during the past summer he had given many hours to a careful examination of the subject, resulting in an entire failure to confirm his former position. This examination had embraced at least five species of the typical genus—*Asclepias*, and single species of each of the allied genera,—*Araujia*, *Physianthus*, *Hoya*, *Gonolobus*, and *Stapelia.*

The phenomena which, last year, were regarded as showing great probability, if not convincing proof, of the contractile power referred to, were:—the grasping of a slender hair by said glands with sufficient force to allow of the withdrawal of the pollen-masses; and a coincident change in the appearance of the jaws or lips of the same glands. The facts are undoubtedly as stated; but the circumstances attending the change had been imperfectly noted or their significance misinterpreted. The lips of the glands in their primary, undisturbed position, which had been thought to be separated by a sensible distance, allowing of the insertion of the foot or proboscis of an insect were now seen to be thickened and chamferred off along the upper edge, leaving a wedge-shaped groove, but still touching one another at the lower surface. No accidental or intended intrusion would therefore be successful in reaching the inner surface of the cylindrical gland; and by very many experiments it was amply proven that no amount of touching or pressure upon the *edges* of this groove was followed by any change of position.

He then explained how the removal of these glands and their associated pollinia *was* effected by insect agency, calling attention to the narrow passage left between the rigid proximate edges of the adjacent anthers; showing that it was widest at their lower extremity, and quickly narrowing, led up into, and was continuous or coincident with the before-named groove through the gland; so that the foot of fly or bee inserted below while the insect was crawling over the flower, was almost necessarily drawn along it until it reached and entered the gland. The very delicate attachment of the latter to the stigma was then easily ruptured, and the insect escaped, carrying glands and pollinia with it. Experiment showed that it was only when the glands were so far removed from their proper position that the caudicles or arms connecting them with the pollen masses were relieved from the restraint in which they had been held on the curved surface of the stigma—that their lips completely closed upon the intended substance, giving them the changed appearance formerly misunderstood.

A comparatively high magnifying power and delicate manipulation of the light further showed, just below the meeting edges of the anthers, a series of fine spicula-like hairs inclined upwards, having a tendency to guide into and restrain within the passage any object which had once entered at the widened end. In some species, noticeably in *Araujia albens*, the nectarial reservoir was shown to be placed immediately below this opened passage, and when the moths which frequent them thrust their proboscis down into the tubular corolla in search of their honeyed food, they are almost certain to be caught, not by the glands primarily, but by these trap-like edges of the anthers. Here, according to many observers, they are held till they die; or, if successful in tearing themselves away, leave the entangled organ behind them in their flight.

In this particular species, alone, of those examined, the release of the insect was not effected when it had successfully drawn foot or tongue along the whole length of this anther trap, as the gland which then receives it is firmly attached to the stigma by a broad ligament at its upper end; and all, excepting possibly the most powerful insects, are still held, while from other species of the family they fly off bearing the pollen masses with them. These in turn are caught in similar channels of other flowers, and lodged against the under surface of the stigma, when their pollen tubes are protruded and fertilization effected.

This, if not necessarily *cross* fertilization is, at least, fertilization by pollen from the same or other flowers placed by an extraneous force against the stigmatic surfaces; and that the singular arrangement of parts just mentioned, apparently so wonderfully calculated to facilitate it, *is* made use of, is very evident. In the course of his observations upon a cultivated plant of *Asclepias curassavicum* during the season of insect visitation, it was rare to find a mature flower which had not lost some of its glands and pollen masses, and very frequently all were missing. In many of these, the pollinia from other flowers were to be found in the situation before stated; and it was a very noticeable fact that from 50 to 80 per cent. of the flowers in these groups were fertilized, while those from which insects were excluded failed to produce a single fertile follicle. A bee captured upon this plant carried upon its legs and tongue thirty of the glands, representing sixty pollen masses. By far the larger number of the latter had been torn away from the glands since their removal, and possibly were the agents in making fertile nearly the same number of flowers.

A very singular fact on the opposite side of the account was mentioned by Mr. Meehan in the Botanical Section: that *Araujia albens* rarely fruited when exposed to insects in the open air, but in green-houses produced pods freely.

On Amber containing Fossil Insects.—Mr. E. Goldsmith called attention to a specimen of amber collected by Mr. Wm. L. Mactier at Nantucket Island, Mass., in which were several well-preserved fossil ants, a fly, and probably small species of coleoptera The specimen also contains a dicotyledonous leaf, of a cinnamon brown color, with the edges free, and the impression of another. This was the first specimen of American amber examined by him in which a trace of imbedded insects could be observed, although this may have been owing to the fact that the others were cretaceous, and therefore, on account of their age, opaque.

The amber from Nantucket Island is probably tertiary, and is of a fine pale claret color without being at all variegated. The specimen examined was an irregular mass of about eleven centimetres in length, somewhat pointed at one end and thicker and rounder at the other, with longitudinal furrows. It is a little heavier than water. The lustre is resinous, but if freshly fractured